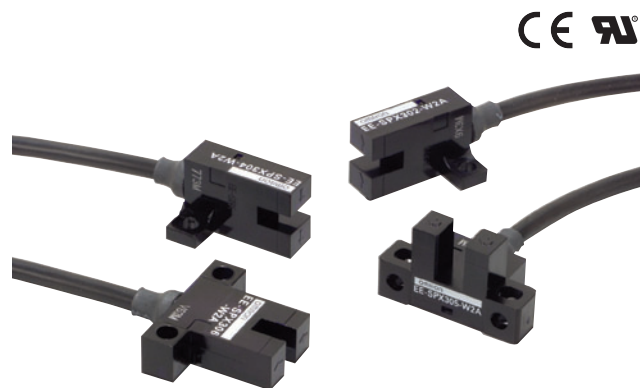


Photomicrosensor with built-in amplifier and attached cable reduces external light interference.

- Light modulation effectively reduces external light interference.
- Wide operation voltage range: 5 to 24 VDC
- Easy operation monitoring with bright light indicator.



Be sure to read *Safety Precautions* on page 3.

For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

Ordering Information

Infrared light

Appearance	Sensing method	Sensing distance (slot width)		Output type	Output configuration	Cable length	Model
	Through-beam type		3.6 mm	NPN output	Dark-ON	1 m	EE-SPX302-W2A 1M
					Light-ON		EE-SPX402-W2A 1M
			3.6 mm		Dark-ON		EE-SPX304-W2A 1M
					Light-ON		EE-SPX404-W2A 1M
			3.6 mm		Dark-ON		EE-SPX306-W2A 1M
					Light-ON		EE-SPX406-W2A 1M
			5 mm		Dark-ON		EE-SPX305-W2A 1M*
					Light-ON		EE-SPX405-W2A 1M*

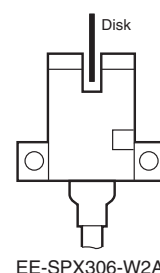
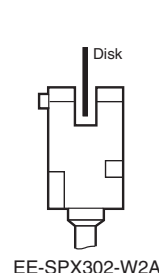
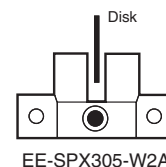
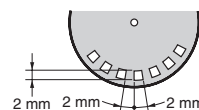
* These models (EE-SPX305/405-W2A only) are not conformed to CE standards.

Ratings and Specifications

Item	Models	EE-SPX302-W2A, EE-SPX402-W2A EE-SPX304-W2A, EE-SPX404-W2A EE-SPX306-W2A, EE-SPX406-W2A	EE-SPX305-W2A EE-SPX405-W2A
Sensing distance		3.6 mm (slot width)	5 mm (slot width)
Sensing object		Opaque: 1 × 0.5 mm min.	Opaque: 2 × 0.8 mm min.
Differential distance		0.05 mm max.	
Light source		GaAs infrared LED (pulse lighting) with a peak wavelength of 940 nm	
Indicator *1		Light indicator (red)	
Supply voltage		5 to 24 VDC ±10%, ripple (p-p): 5% max.	
Current consumption		Average: 15 mA max.; Peak: 50 mA max.	
Control output		NPN voltage output: Load power supply voltage: 5 to 24 VDC Load current: 80 mA max. OFF current: 0.5 mA max. 80 mA load current with a residual voltage of 1.0 V max. 10 mA load current with a residual voltage of 0.4 V max.	
Response frequency *2		500 Hz min.	
Ambient illumination		3,000 lx max. with incandescent light or sunlight on the surface of the receiver	
Ambient temperature range		Operating: -10 to +55°C Storage: -25 to +65°C	
Ambient humidity range		Operating: 5% to 85% Storage: 5% to 95%	
Vibration resistance		Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 h each in X, Y, and Z directions	
Shock resistance		Destruction: 500 m/s ² for 3 times each in X, Y, and Z directions	
Degree of protection		IEC IP50	
Connecting method		Pre-wired (standard cable length: 1 m)	
Weight		18.5 g	
Material	Case	Polycarbonate	
	Holder		

*1. The indicator is a GaP red LED (peak wavelength: 700 nm).

*2. The response frequency was measured by detecting the following rotating disk.



I/O Circuit Diagrams

NPN Output

Model	Output configuration	Timing charts	Output circuit
EE-SPX402-W2A EE-SPX404-W2A EE-SPX405-W2A EE-SPX406-W2A	Light-ON	Incident Interrupted Light indicator (red) ON OFF Output transistor ON OFF Load 1 (relay) Operates Releases Load 2 H L	* Voltage output (when the sensor is connected to a transistor circuit)
EE-SPX302-W2A EE-SPX304-W2A EE-SPX305-W2A EE-SPX306-W2A	Dark-ON	Incident Interrupted Light indicator (red) ON OFF Output transistor ON OFF Load 1 (relay) Operates Releases Load 2 H L	